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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

SUBRAMANIAN, NARAYANSWAMY

ART UNIT PAPER NUMBER

3624

DATE MAILED: 03/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/580,448

Applicant(s)

SNYDER, SCOTT ANDREW

Examiner

Narayanswamy Subramanian

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 February 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-53 is/are pending in the application.
- 4a) Of the above claim(s) 46-53 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-45 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. This communication is in response to Applicant's response to restriction requirement filed on February 03, 2003. Claims 1-53 are pending. Applicant's election of Group I claims 1-45 is acknowledged. Claims 46-53 are withdrawn from consideration. Elected claims 1-45 have been examined. The rejections are stated below.

#### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-7, 9-11, 13, 14, 17-22, 26-31, 33-35, 37, 38, 41, and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sammon, Jr. et al (US Patent 6012051) in view of Jacobs (US Patent 5768142).

With reference to Claims 1 and 26, Sammon discloses a method and system for assisting a customer in choosing items in commodity categories, the method and means comprising the steps of: (a) ranking the options within each commodity category; (b) for each commodity category, creating a plurality of combinations of commodity options by (i) selecting a highest ranked option for a commodity category; (See Sammon Column 3 line 8 – Column 4 line 13)) The product domain is interpreted to include several categories. For example the car domain would include categories such as new cars, used cars, sports cars, family cars etc. The mutual funds domain would include categories such as income fund, growth fund, balanced fund etc.

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The steps of assigning scores and ordering are interpreted to include the steps of ranking and selecting the highest ranked option.

Sammon fails to explicitly teach the steps of choosing a combination of commodity options, wherein said combination has at least two commodity categories, and each commodity category has at least two options; (ii) selecting any options in other commodity categories that are linked to the option selected in step (b)(i); (iii) selecting valid options for remaining commodity categories, until the combination of commodity options is complete; (c) calculating a total effective cost of each combination of commodity options; and (d) presenting the combinations of commodity options to the customer, whereby the customer selects a combination of commodity options for purchase.

Jacobs teaches the steps of choosing a combination of commodity options, wherein said combination has at least two commodity categories, and each commodity category has at least two options; (ii) selecting any options in other commodity categories that are linked to the option selected in step (b)(i); (iii) selecting valid options for remaining commodity categories, until the combination of commodity options is complete; (c) calculating a total effective cost of each combination of commodity options; and (d) presenting the combinations of commodity options to the customer, whereby the customer selects a combination of commodity options for purchase. (See Jacobs Col 2 line 56 - Col 3 line 62 and claim 32) The components of products are interpreted to include product categories, the complete product is interpreted to include the combination and the linking feature is inherent in the features disclosed.

It would have been obvious to one with ordinary skill in the art at the time of the current invention to combine the steps taught by Jacobs to the invention of Sammon. The combination of

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the disclosures taken as a whole, suggests that users would have benefited from selecting a combination or a product that best suits their needs and best fits their budget.

With reference to Claims 2 and 27, Sammon discloses a method and means of claims 1 and 26 respectively, further comprising the steps of visiting a web site by the customer and sending the preferences of the customer to the web site. (See Sammon Column 1 lines 57-60).

With reference to Claims 3, 4 and 28, Jacobs discloses a method and means of claims 1 and 26 respectively, wherein step (b) comprises the additional steps of: (iv) selecting a next ranked option for a commodity category; (v) selecting any options in other commodity categories that are linked to the option selected in step (b)(iv); and (vi) selecting valid options for remaining commodity categories until the combination of commodity options is complete and the steps (b)(iv), (b)(v) and (b)(vi) are repeated for a plurality of ranks. (See Jacobs Column 3 lines 54-62).

With reference to Claims 5 and 29, Jacobs discloses a method and means of claims 1 and 26 respectively, wherein step (d) comprises presenting the combinations of commodity options ranked personally for the consumer based on the consumer's criteria. (See Jacobs Col 2 lines 60-67) The criteria specified by the customer are interpreted to include costs and the suitability rating is interpreted to include total effective cost as a criterion.

With reference to Claims 6, 7, 30 and 31, Sammon discloses a method and means of claims 1 and 26 respectively, wherein step (a) comprises computing the scores for each option and ranking the options within each category by scores. (See Sammon Column 3 lines 27-42). The scores are interpreted to include the effective cost.

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With reference to Claims 9 and 33, Sammon discloses a method and means of claims 7 and 31 respectively, wherein the options are ordered according to user's preferences (See Sammon Column 3 lines 8-42). The steps of ordering the options according to user's preferences is interpreted to include the steps of calculating a total effective cost for each of the plurality of combinations of commodity options by adding the effective costs of the selected options in the combinations of commodity options.

With reference to Claims 10 and 34, Sammon discloses a method and means of claims 7 and 31 respectively, wherein step (a) comprises the steps of, for each category: (i) identifying at least one first parameter associated with a commodity option; (ii) associating at least one value to the at least one first parameter; (iii) calculating an estimated cost of the commodity option based on features of the commodity category that are desired by the customer; (iv) obtaining from the customer a preference weighting on at least one second parameter; (v) calculating an effective cost of the commodity option by adjusting the estimated cost based on the preference weighting and the at least one value assigned to the parameters; and (vi) ranking the options within each category by effective cost. (See Sammon Column 1 line 50 – Column 2 line 61 and Column 3 line 8 – Column 4 line 13). The attributes and scores are interpreted to include costs and effective costs respectively).

With reference to Claims 11 and 35, Sammon discloses a method and means of claims 10 and 34 respectively, wherein the parameter is a feature, an attribute, or a performance characteristic associated with the commodity category. (See Sammon Column 7 line 33 – Column 8 line 22).

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With reference to Claims 13, 14, 37 and 38, Sammon discloses a method and means of claims 10 and 34 respectively, wherein the user preferences and customer information is stored in a first database, information about the commodity including bundling links and combinations created in step (b) are stored in a second database. (See Sammon Column 5 lines 14-31). The user profile data structure could be partitioned such that the user preferences and requirements that define the utility function are in one database and other user information are in a separate database.

With reference to Claims 17 and 41, Sammon discloses a method and means of claims 1 and 26 respectively, wherein the customer determines the commodity categories included in the combination. (See Sammon Column 1 lines 60-64).

With reference to Claims 18 and 42, Sammon discloses a method and means of claims 1 and 26 respectively, wherein the commodity categories that are included in the combination are predefined. (See Sammon Column 1 lines 57-60).

With reference to Claims 19-22, Sammon discloses a method claim 1, wherein the commodities include a large number of multi-faceted items. (See Sammon Column 3 lines 57-60 and Column 15 lines 18-24). The multi-faceted items are interpreted to include products and services including telephone services and handsets.

4. Claims 8 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sammon, Jr. et al (US Patent 6012051) in view of Jacobs (US Patent 5768142) and further in view of Kimura et al (US Patent 5521364).

With reference to claims 8 and 32, Sammon and Jacobs combined disclose a method and means of claims 1 and 26 respectively (as discussed above), wherein step (a) comprises

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computing the scores for each option and ranking the options within each category by scores.

(See Sammon Column 3 lines 27-42). The scores are interpreted to include the effective cost.

Sammon and Jacobs fail to teach the step of including bundling discounts in computing the effective cost.

Kimura discloses a method and means for including bundling discounts in the administration of selling products and services. (See Kimura Column 1 lines 19-26 and 63-67).

It would have been obvious to one with ordinary skill in the art at the time of the current invention to combine the steps taught by Kimura and Jacobs to the invention of Sammon. The combination of the disclosures taken as a whole, suggests that the effective costs would be more comprehensive and the ranking of alternatives more accurate if bundling discounts were considered.

5. Claims 12, 15, 16, 36, 39 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sammon, Jr. et al (US Patent 6012051) in view of Jacobs (US Patent 5768142) and further in view of Ulwick (US Patent 6085165).

With reference to claims 12, 15, 16, 36, 39 and 40, Sammon and Jacobs combined disclose a method and means as described in the discussion of claims 10 and 34 above. Sammon also discloses the step of setting a range for the at least one first parameter. (See Sammon Column 8 lines 8-22).

Sammon and Jacobs fail to teach the steps of sampling a random set of customers over the range, determining a best-fit utility function using regression analysis, determine using the utility function a value that represents a cost or a benefit of the parameter to the customer, subtract the benefit and add the cost to the effective cost.

Ulwick teaches the steps of using the data for multiple users and using matrix analysis and mathematical algorithm to develop the predictive metrics for the users. (See Ulwick Column 5 lines 1-39). The predictive metrics are interpreted to include the Utility function and the cost or benefit of the parameter to the customer. The matrix analysis and mathematical algorithm are interpreted to include regression analysis. Official notice is taken that subtracting benefit and adding costs to a cost figure are old and well known in the art.

It would have been obvious to one with ordinary skill in the art at the time of the current invention to combine the steps taught by Ulwick and Jacobs to the invention of Sammon. The combination of the disclosures taken as a whole, suggests that it would help the sellers better tailor the options they offer to suit the needs of a target group of customers. The combined disclosures also suggest that expressing the outcomes in terms of effective costs will give the user a better idea about the relative costs of the various combinations.

6. Claims 23-25 and 43-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sammon, Jr. et al (US Patent 6012051) in view of Jacobs (US Patent 5768142) further in view of Scott et al (US Patent 6292787).

With reference to claims 23-25 and 43-45, Sammon and Jacobs combined disclose a method and means as described in the discussion of claims 1 and 26 above. The alternatives are ranked using the preferences indicated by the customer.

Sammon and Jacobs fail to teach the steps of (e) receiving from the customer a combination of commodity options, wherein the commodity options are selected by the customer, and calculating a total effective cost of the customer-selected combination of commodities; presenting the combinations of commodity options created in step (b) of claim 1

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with the combination of commodity options created by the customer in step (e) ranked by total effective cost; and the customer selecting a portion of a combination of commodity options for purchase.

Scott teaches the steps of receiving the initial selection from the customer and implicitly computing a cost of the initial selection, computing the costs of other alternative combinations so that they can be compared and ranked if necessary. (See Scott Claim 1). Official notice is taken that customer selecting a portion of a combination of commodity options for purchase is old and well known in the art.

It would have been obvious to one with ordinary skill in the art at the time of the current invention to combine the steps taught by Scott and Jacobs to the invention of Sammon. The combination of the disclosures taken as a whole, suggests having the customer make the initial selection helps in establishing a threshold to compare other combinations presented by the invention. The combined disclosures also suggest that using costs to compare alternatives helps the customer consider the options that will fit his/her budget.

#### ***Response to Restriction Requirement***

7. Applicant's arguments in regards to the restriction requirements have been considered but are non persuasive for the reasons given below. Group II claims include the features of (a) selecting an option for a commodity category into a grouping, where the option is not currently being used in another grouping; (b) determining whether the selected option is linked to other options; (c) if the option is determined to be linked in step (b), selecting the linked options into the grouping; (d) if the grouping is not complete, determining an option that has not previously been used in a grouping, wherein either the determined unused option is linked to options in

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categories that do not have options selected in the grouping, or the determined unused option has no links, and selecting the determined unused option and any linked options into the grouping; and (e) repeating step (d) until the grouping is complete. Group I claims include the features of (f) ranking the options within each commodity category; (g) for each commodity category, creating a plurality of combinations of commodity options by (i) selecting a highest ranked option for a commodity category; (ii) selecting any options in other commodity categories that are linked to the option selected in step (g)(i); (iii) selecting valid options for remaining commodity categories, until the combination of commodity options is complete; (h) calculating a total effective cost of each combination of commodity options; and (k) presenting the combinations of commodity options to the customer, whereby the customer selects a combination of commodity options for purchase. It is clear to one with ordinary skill in the art that the features found in Group I are different from those in Group II. Hence the two groups are considered as two separate inventions that can be used as sub-combinations, even though they are not classified into a separate class or sub-class. These inventions require a separate search. The fact that a search was done by the examiner is not a test of "serious burden" imposed on the examiner. Hence the restriction of the claims is maintained.

### ***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Narayanswamy Subramanian whose telephone number is (703) 305-4878. The examiner can normally be reached Monday-Thursday from 8:30 AM to 7:00 PM.


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vincent Millin can be reached at (703) 308-1065.

The fax number for Formal or Official faxes and Draft or Informal faxes to Technology Center 3600 or this Art Unit is (703) 305-7687.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-1113.

N. Subramanian  
February 12, 2003

 RICHARD WEISBERGER  
PRIMARY EXAMINER